

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 251-255, 257-259, 263-268, 270-271 and 280 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa et al (US 5,895,515). Ishikawa discloses a VAD method of making optical fiber preforms. The method comprises providing a chamber 400 as shown in figure 5, controlling a dopant material in the chamber as disclosed in Col. 3-4, providing at least one substrate 300 and relatively rotating the substrate as shown in figure 5, and heating the chamber as a result of depositing silica particles of the substrates. As for the claimed fusing and sticking of silica particles, said steps inherently occur during a VAD process. As for the claimed moving at least one preform and substrate in the chamber, figure 5 discloses moving of the preform and substrate in a vertical direction. In regards to the claimed step of controlling pressure within the chamber, it is deemed that it is an inherent feature of Ishikawa in view that it provides a vent/exhaust 420. Thus, the exhaust would provide a means to control the pressure in the chamber.

As for claim 252 and 280, the silica particles are generated by burners 520 and 510 that are mounted on the wall of the chamber as shown in figure 5.

As for claim 253, the burner generates a silica stream that is directed towards the substrate to thus form a porous preform.

As for claim 254, the claimed dopant gas is CF_4 being introduced by burner 520, the claimed purge gas would be the gas that is un-reacted in the hydrolysis reaction forming the silica particles, the claimed venting and removing gases from the chamber is achieved by exhaust means 420.

As for claim 255, the claimed step of providing a plurality of substrates would be met when additional substrates are provided within the treating chamber 400 to make additional preforms.

As for claim 257, the feeding of silica is stopped in order to consolidate the preform as shown in figures 6-7 and detailed in Col. 5, lines 39ff

As for claim 258, a second layer is deposited onto the fused silica as detailed in the bridging paragraph of col. 7-8 to form a cladding layer.

As for claim 259, 270 and 271, the core is doped with fluorine and the cladding has no doping as detailed in Col. 7-8.

As for claim 263, feeding of the silica when making the cladding is done subsequent to the consolidation of the preform in a chamber.

As for claim 264, figure 5 shows substrate having a hemispherical end portion.

As for claim 265, the claimed pulling mechanism is deemed as element 410.

As for claims 266-268, merely providing additionally apparatuses of Ishikawa would meet the claimed limitations because claim 266 only requires the step of "providing". Consequently each chamber would have its pressure and dopant quantity controlled by the amount of gases fed into each burner 510 and 520.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 260-262 and 269 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (US 5,895,515) in view of Mansfield (US 4,761,170). Schneider is silent disclosing the type of heater being used to consolidate the preform. However, Mansfield discloses the use of Rf coil heating to consolidated the preform (See fig. 2) in order to provide a provide better temperature control during consolidation (Col. 6, lines 14ff). Hence, at the time the invention was made it would have been obvious to a person of ordinary skill in the art to have used the heater of Mansfield as the heater of Ishikawa in order to provide better temperature control during the consolidation process.

Response to Arguments

Applicant's arguments filed 6/19/09 have been fully considered but they are not persuasive. Applicant argues that the prior art fails to anticipate the claimed invention because the cited prior art uses a series of steps and chambers in order to practice the claimed invention.

However, while the prior art does use a series of steps and chambers, the first step of providing silica particles within a chamber, despite being among a series of steps, reads on the claimed invention. Throughout the above rejection, figure 5 has

been referenced to address each limitation of the claimed invention. Yet, applicant's focus is not on figure 5 and how the sub-step process embodied by figure 5 does not read on the claimed invention but rather, applicant's focus is to a moot point on how the prior art uses a series of step and chambers.

Hence, it is agreed that the prior uses a series of steps and corresponding chambers, but what is being held to anticipate the claimed invention is that within this series of steps, there is a sub-step as embodied by figure 5 that reads on the claimed invention.

In conclusion, the arguments are deemed as unpersuasive because they fail to address how the steps embodied by the process of figure 5 fails to meet the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARLOS LOPEZ whose telephone number is (571)272-1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carlos Lopez/
Primary Examiner
Art Unit 1791